

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Implementation of Sections 716 and 717 of)	CG Docket No. 10-213
the Communications Act of 1934, as Enacted)	
by the Twenty-First Century Communications)	
and Video Accessibility Act of 2010)	
)	
Amendments to the Commission's Rules)	
Implementing Sections 255 and 251(a)(2) of)	WT Docket No. 96-198
the Communications Act of 1934, as Enacted)	
by the Telecommunications Act of 1996)	
)	
In the Matter of Accessible Mobile Phone)	
Options for People who are Blind, Deaf-)	CG Docket No. 10-145
Blind, or Have Low Vision)	
)	

COMMENTS OF WORDS+, INC. AND COMPUSULT SYSTEMS INC.

Words+, Inc. (“Words+”) and Compusult Systems Inc. (“Compusult”) submit these comments in response to the Federal Communications Commission’s (Commission) Notice of Proposed Rulemaking in the above-referenced dockets. We support the Commission’s efforts to facilitate the ability of consumers with disabilities to use advanced communications services and equipment. We remain concerned, however, lest certain populations within the disabled community not be equally served by the Twenty-First Century Communications and Video Accessibility Act of 2010.

We would like to submit the following comments in regards to the rule making process. The following comments will be made by addressing specific paragraphs of the FCC briefing document. The specific paragraph is bolded, with our comments follow the excerpt.

4. This NPRM seeks comment on the way in which we should implement the requirements of Sections 716 and 717, which were added by Section 104 of Title I of the CVAA. The statute requires the Commission to adopt rules within one year of enactment. Section 716 requires that providers of “advanced communications services” (or “ACS”) and manufacturers of equipment used for ACS make their services and products accessible to people with disabilities, unless it is not achievable to do so. The CVAA provides flexibility to the industry by allowing covered entities to comply with Section 716 by either building access features into their equipment or services or relying on third party applications, peripheral devices, software, hardware, or customer premises equipment (or “CPE”) that is available to individuals with disabilities at nominal cost. If such compliance is not achievable, covered entities must ensure that their equipment and services are compatible with “existing peripheral devices or specialized customer premises equipment” commonly used by persons with disabilities to achieve access, unless it is not achievable to do so. Section 717 requires that the Commission establish new recordkeeping and enforcement procedures for manufacturers and providers subject to Section 255 and Section 716. Appendix D contains the full text of the CVAA as enacted.

Under the conditions of section 716 of the Act, we support the requirement for "manufacturers who manufacture equipment for advanced communications, including end user equipment, network equipment, and software, to ensure that the equipment and software that such manufacturer offers for sale or otherwise distributes in interstate commerce shall be accessible to and usable by individuals with disabilities, unless the requirements of this subsection are not achievable" and that services providers that provide advance communication services shall ensure that such services offered by such provider in or affecting interstate commerce are accessible to and usable by individuals with disabilities, unless the requirements of this subsection are not achievable. As members of the assistive technology industry we recognize that the cost to consumers would be greatly reduced if the manufacturers "ensured that the equipment that such manufacturer offers is accessible to and usable by individuals with disabilities without the use of third party applications, peripheral devices, software, hardware, or customer premises equipment" as stated in Section 716. Where that is not practical, the assistive technology industry is capable of creating third party solutions if standardized interfaces that allow existing and future assistive technology to connect to advance communications devices are developed jointly between ACS manufacturers and assistive technology manufacturers, and adopted by ACS manufacturers and service providers. We note that individual manufacturers and service providers often try to create competitive advantages by implementing features and services that are unique to specific service providers to create differentiation with consumers. Such strategies create difficulties to assistive technology manufacturers from an economic perspective if no standardized interfaces exist across manufacturers and service providers. Unlike the consumer electronics, the assistive technology industry does not have the product research and development budget to be constantly re-designing its products in reaction to changes to advanced communications products if the recent pace of change in the consumer telecommunications industry is any indication. Typical 9 to 18 month consumer product cycles are inconsistent with the longer 3 to 5 year (or even longer) product cycle of the specialized assistive technology industry.

In regard to the following excerpt from section 716:

"(1) In general- Within one year after the date of enactment of the Twenty-First Century Communications and Video Accessibility Act of 2010, the Commission shall promulgate such regulations as are necessary to implement this section. In prescribing the regulations, the Commission shall--

`(A) include performance objectives to ensure the accessibility, usability, and compatibility of advanced communications services and the equipment used for advanced communications services by individuals with disabilities;"

We understand that creating performance objectives can be difficult given the spectrum of abilities in each of the major disability groups: blind, deaf, mobility impairment, speech impairment, and individuals with cognitive impairments. The draft of new guidelines for Section 255 of the Telecommunications Act and Section 508 of the American Disabilities Act put forward by the Access Board tries to tackle the difficult task, we note that in the process of trying to achieve consensus that some of the definitions in the draft may be too broad and leaving the combination of accessibility features up to the interpretation of the individual manufacturers/service providers creates confusion for consumers. The result is that some people with specific disabilities have not had their needs met by existing telecommunication products covered under the old and new guidelines and that they potentially will not have their needs addressed under the CVAA. The challenge is that telecommunications manufacturers and service providers do not have good grounding in disability

issues and from our own experience they perceive each of the major categories of disabilities as distinct silos, not realizing there is a spectrum of abilities within each disability group and the many people have multiple disabilities. For example the Access Board draft has references to:

202.7 Without Speech. At least one mode of operation that does not require user speech shall be provided.

202.10 Without Physical Contact. At least one mode of operation that does not require physical contact shall be provided.

This language existed under the original guidelines. As an example, if one were to look at the way these accessibility features have been interpreted in the past for cellphone devices, you will often see the ability to use speech recognition to dial a phone number as a feature to address the needs of people with mobility impairments. The fact that cellphone manufacturers highlight this as a mobility impairment feature does not recognize that some people with mobility impairments also do not have the ability to speak and require augmentative communication devices to communicate. Even the feature to dial a phone number with speech recognition does not make for an accessible phone, as many phones still do not have the ability to check the amount of battery power left by speech recognition or check the number of minutes left in the plan by speech recognition. Taking isolated requirements does not ensure an accessible phone.

As another example, we know of no solution that is currently implemented or under development by a handset manufacturers that allows a person that has no movement of his hands and is without speech and therefore uses an augmentative communications device to full utilize a feature phone or a smartphone. Without more specific guidance to the manufacturers and service providers we anticipate that it will be difficult to implement solutions that consumers with disabilities can count on, except in the narrowest definitions of those disabilities.

We do not want to see the same issues that have created challenges for the Access Board Guidelines carry over to the rule making process of CVAA. We suggest that having more explicit definitions of each of the disability groups with a definition of the spectrum of abilities represented in each of the disability group should be part of the rule making process. User profiles which are common with manufacturers should be part of the performance objectives, so that the manufacturers understand explicitly what problems are being addressed by consumers. This still leaves the manufacturer some flexibility in how they implement their range of solutions if they still require differentiation for their products.

In regard to implementing third party solutions in the event ACS manufacturers are not able to implement solutions as part of their product, we note that industry wide standards are required to make it viable for the assistive technology industry to do so for any significant number of ACS devices. A lack of standardization across manufacturers as to how to interface assistive technology to telecommunication devices, the lack of standard feature sets even within a manufacturer's product offerings, under the old and new guidelines, and the rapid rate at which new devices are coming out has made it difficult for AT manufacturers to develop and keep accessible products on the market. It has also led consumers with disabilities having inconsistent access to the devices they can use. So the text to speech capability on the Apple iPhone for example have different capabilities to the text to speech system available on an Android-based phone, for example.

6. The NPRM also seeks comment on Section 718, which is effective three years after the date of

enactment of the CVAA and requires manufacturers and service providers to make Internet browsers built into mobile phones accessible to people who are blind or have visual impairments. Specifically, the NPRM seeks input on what steps the Commission and stakeholders can take to ensure that manufacturers and service providers can meet their obligations when Section 718 goes into effect in 2013.

We applaud the objective of this section, but we would like to point out that people with disabilities other than blindness or visual impairment also face challenges accessing internet browsers, more specifically, people with moderate to severe mobility impairments and people who have speech impairments. Without a specific directive, we are concerned that the interest of these groups of end users will not be given the priority by manufacturers and service providers that this issue requires.

9. The rules adopted to implement Section 255 require that where readily achievable, manufacturers and service providers must evaluate the accessibility, usability, and compatibility features of covered services and equipment; incorporate such evaluation throughout product design, development, and fabrication, as early and consistently as possible; and identify barriers to accessibility and usability as part of the product design and development process. The rules also provide that where readily achievable, manufacturers and service providers must ensure that product and service information and documentation provided to customers is accessible to customers with disabilities. In addition, under the rules, equipment manufacturers must “pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide telecommunications in an accessible format,” where “readily achievable.” The rules also contain an informal complaint procedure by which manufacturers and service providers must attempt to resolve the complainant’s concerns and respond to the Commission within 30 days.

We support the higher standard of “not achievable” put forward by the CVAA. While section 255 put forward that manufacturers and service providers must “evaluate the accessibility, usability, and compatibility features of covered services and equipment; incorporate such evaluation throughout product design, development, and fabrication, as early and consistently as possible; and identify barriers to accessibility and usability as part of the product design and development process”, as assistive technology developers and manufacturers we have not seen this translated into practice in a consistent and timely manner. Many of our customers still do not have access to devices covered under Section 255 and we do not want to see the same level of response by the industry under the CVAA. We strongly support the informal complaint procedure as a means of identifying accessibility issues by those currently unable to access technology and encourage companies to respond more actively to accessibility issues.

15. Since Section 255 was first enacted, communication technology has changed significantly, both in terms of its usage of the Internet and packet-switched networks instead of circuit-switched networks and in its common architecture. In many cases, communication devices had a single function and were created by a single manufacturer and often closely tied to a specific communication service or network. As the fixed and mobile Internet has evolved, mass-market communication devices are now often general-purpose computers or devices such as smart phones incorporating aspects of general-purpose computers, with an architecture reflecting the evolution of computer technology. This architecture has been common for personal computers since the 1980s, but has more recently also made its way into mobile devices such as smart phones and tablets, and into entertainment devices such as game consoles and set-top boxes. In all of these cases, systems can be divided into at least five components that can be pictured, roughly, as

layers, with the hardware at the bottom and the application and services at the top:

Hardware (commonly referred to as the “device”): Every advanced communications service relies on hardware with general-purpose computing functionality. It typically includes a computing component (“CPU”), several kinds of memory, one or more network interfaces (cellular, IEEE 802.11 “WiFi,” Ethernet, Bluetooth, etc.), built-in peripherals such as keyboards and displays, and both generic and dedicated-purpose interfaces to external peripherals. A common example of a generic interface is a USB interface, as it can support just about any input or output technology, from audio to keyboards and cameras. A dedicated-purpose interface can only support one media type, such as audio.

Operating system (“OS”): The OS manages the system resources enumerated above and provides common functionality, such as network protocols, to applications. Almost all devices with a CPU have an OS.

User interface layer: Most modern devices have a separate user interface (“UI”) layer upon which almost all applications rely to create their graphical user interface. Currently, the OS and user interface layer are typically provided as a package and are often referred to collectively as the OS, but this is not always the case. For example, at least one common OS allows users to replace the user interface layer. In many cases, web browsers are considered to be part of the UI layer although they themselves are also an application.

Application (commonly referred to as an “app”): Software is used to implement the actual advanced communications functionality. The software may be embedded into the device and non-removable, installed by the system integrator or user, or reside in the cloud.

Network services: Advanced communication applications, such as VoIP, rely on network services to interconnect users. These networks perform many functions, ranging from user authentication and authorization to call routing and media storage. In many cases, such network services simply route the call signalling information and do not touch the actual media exchanged. In these cases, the service itself may not know or care what kind of media (audio, video, text) is exchanged between communicating end systems. In other cases, the network services may perform more than transport functions and offer video, voice, and other data capabilities.

While the particulars of the above components have evolved, the basic architecture has remained stable for several decades and there are no obvious successors under development in the research community. Thus, it appears reasonably safe to assume that this division will continue for the immediate future, although we note that the components listed above overlap with each other.

16. Because each of the above components may be created by a different manufacturer and sold separately, this division has three major consequences. First, a manufacturer or provider of one component may have limited ability to know which other components are being used to deliver an advanced communications service. For example, a PC- and web-based collaboration service can run on most personal computers, using an almost infinite set of combinations of hardware, operating systems, and web browsers. Second, components of the service can change over time. Users can often upgrade their hardware, OS, or application, without consulting with the manufacturer or provider of the other components. Third, the accessibility features of each component are likely to evolve over time. Manufacturers of hardware, OS, and user interface

layers may not know whether the components they produce will be used for advanced communications services in the future and for which ones.

17. In order to enable individuals with disabilities to use an advanced communications service, all of the components may have to support accessibility features and capabilities. Conversely, if one component does not offer a particular function, it is often impossible for another component to compensate for that omission. For example, only the hardware component can support an audio jack or a connection to an external Braille device, while only the OS and user interface layer can enable screen readers. In addition, it should be noted that while upper layers cannot make up for the lack of accessibility features at the lower layers, they can impede their use. For example, an application could render text in such a way that screen readers or Braille devices cannot function, e.g., to protect content against extraction as part of digital rights management functionality. While this environment complicates the ability to implement capabilities that support people with disabilities, we also recognize that these challenges are inherent in the design of any mass-market application or hardware device. At the same time, we recognize that this environment also has the potential to provide new solutions for people with disabilities which were not previously possible.

18. We seek comment on whether the above description accurately reflects the basic architecture and components involved in the delivery of ACS. Below, we seek comment on how we should interpret the statute's directives, in light of the architecture and components discussed above.

We agree with the FCC's characterization of the basic architecture and components.

19. Section 716(a) of the Act provides that, with respect to equipment manufactured after the effective date of applicable regulations established by the Commission and subject to those regulations, the accessibility obligations apply to a "manufacturer of equipment used for advanced communications services, including end user equipment, network equipment, and software . . . that such manufacturer offers for sale or otherwise distributes in interstate commerce."

20. We first seek comment on the meaning of the term "manufacturer." We note that in our Section 255 rules we define "manufacturer" as "an entity that makes or produces a product." In the Section 255 Report and Order, we found that "[t]his definition puts responsibility on those who have direct control over the products produced, and provides a ready point of contact for consumers and the Commission in getting answers to accessibility questions and resolving complaints." We propose to adopt the same definition of "manufacturer" in our Section 716 rules and seek comment on this proposal.

We believe the definition of "direct control" needs to be qualified. We recognize that the actual manufacture of products is often outsourced to third party electronic contract manufacturing firms. The company that designs product, determines the level of quality control the product is manufactured to and that ultimately takes delivery of the product before passing it on to their distribution channel for sale to consumers or service providers should be classified as the manufacturer.

21. We also seek comment on the meaning of "end user equipment," "network equipment," and "software," as those terms are used in Section 716(a). We propose to define "end user equipment" as including hardware as described above; "software" includes the OS, the user interface layer, and applications, as described above, that are installed or embedded in the end

user equipment by the manufacturer of the end user equipment or by the user; and “network equipment” includes equipment used for network services, as described above. We seek comment on whether upgrades to the software (OS, user interfaces, or applications) by manufacturers are encompassed in these definitions. We also seek comment on whether there are any circumstances in which a manufacturer of end user equipment would be responsible for the accessibility of software that is installed or downloaded by the user. In particular, we seek comment on commenters’ assertions that the limitations on liability in Section 2(a) of the CVAA generally preclude manufacturers from being liable for third party applications that are installed or downloaded by the consumer.¹

We support the definition of “end user equipment” as put forward by the FCC.

We believe that upgrades to the operating system and applications that come shipped on the device from the manufacturer should be encompassed by these definitions as they go directly to the intended functionality of device. A consumer expects a specific level of functionality and accessibility when he first receives the device. To have that functionality reduced due to an “upgrade” to the operating system or one of the applications shipped with the device is a fundamental change to the original functionality of the device. We would expect that upgrades to the operating system, user interfaces and standard applications to be shipped as the standard configuration on future end user equipment would maintain backward compatibility with respect to accessibility.

We would only see limited liability on the part of manufacturers in regards to accessibility of third party applications installed and downloaded by the end user. In the case where the component parts do not function as documented and the third party developers has relied on the information supplied by the manufacturer to support the accessibility of their software, we believe it is up to the manufacturer to address these issues in a timely manner. Assistive technology developers of third party software have encountered cases where the operating system APIs (application programming interfaces) have not functioned as documented by the manufacturer and when applications shipped on the devices have not functioned as documented. These are issues that cannot be addressed by third party developers and fundamentally need to be addressed by the manufacturers in a timely manner. In specific cases, at least one assistive technology provider has been told by some ACS manufacturers in the past that the anticipated level of demand by consumers with disabilities relative to consumers without disabilities do not justify making the appropriate changes in a timely manner so that their operating system or applications meet the specification detailed in their our documentation.

22. In addition, we seek comment on the meaning of the phrase “used for advanced communications services” in Section 716(a), for the purposes of determining a manufacturer’s obligations under this section. As a general matter, must equipment subject to Section 716(a) be capable of offering ACS on a standalone basis or merely support ACS in some way? If the former, then how should this standard be applied, for example, to Internet-enabled ACS intended to run on separately distributed general computing platforms?

We support the definition that the equipment subject to Section 716(a) be capable of merely supporting ACS in some way. If we were to look at existing devices that support some form of ACS, such as smartphones, we see that they are multipurpose devices capable of supporting traditional voice calls as well as ACS such text messaging, internet access, video conferencing and streaming video. We have not noted any trend towards unbundling of these services into specific devices that only offer one or more ACS. In fact we note that there is a trend by service providers to offer more advance services on a single device in order to increase the revenue per user (RPU). We do not see this trend changing any time soon.

We note that some members of the deaf community have been requesting this form of un-bundling for many years as they do not use voice services, but they only get subscription discounts on text messaging if they accept one of the packages that offer voice and data. Similarly, there are currently no devices on the market that only support text message or other ACS with the exclusion of voice. We have seen reluctance for service providers to offer cost effective data only plans for text messaging, or if they do, they are not well advertised.

23. We also seek comment on the meaning of “offers for sale or otherwise distributes in interstate commerce” by “such manufacturer.” Hardware, as described above, commonly meets this definition. We seek comment on whether other components that are used for advanced communications services are offered for sale or otherwise distributed in interstate commerce by the manufacturer when installed or embedded by the manufacturer. We propose to treat generally the act of a manufacturer’s making software available for download as a form of distribution. We seek comment, however, for purposes of the CVAA, on what should constitute making software available for download.

We note that upgrades to the operating system are sometimes made available to consumers via CD-ROM, DVD or available in electronic format such as via email or by download. We consider that “offers for sale or otherwise distributes in interstate commerce” applies to all forms of distribution.

In regards to software application we note that manufacturers and service providers sometimes make distribution deals with third party developers to have their product be a part of the software application shipped with the ACS end user equipment from the manufacturer. In some cases, the end user has the option to upgrade their version of the software or are “up sold” to access some additional service. In cases where this third party software is one of the applications shipped on the phone from the manufacturer, we believe that in some cases (see comments on paragraph 27, this software should be covered under the CVAA, and in these cases it is the manufacturer’s responsibility to confirm the accessibility of this software.

In regards to making software available for download, we note that upgrade to existing software to fix flaws in the software constitute distribution for interstate commerce even though money is not directly changing hands between the consumer and the manufacturer. In regards to the definition of “making software available for download” we propose a broad definition that encompasses any electronic transmission of the software. Downloading in some regards is a proactive process.

24. We propose to hold manufacturers of end user equipment responsible for the accessibility of their products, including the software, such as the OS, the user interface layer, and the applications that they install. We also propose to find manufacturers of software used for advanced communications services that is offered for sale or otherwise distributed in interstate commerce by such manufacturers and that is downloaded or installed by the user as being covered by Section 716(a).

We agree and support this position put forward by the FCC in this paragraph.

26. In the Section 255 Report and Order, the Commission found that providers of telecommunications services include resellers and aggregators. The Commission's decision was based on its interpretation of the statutory definition of “telecommunications carrier” as defined in Section 3(51) of the Act. Specifically, the Commission noted that “[section 3(51)] states that a

‘telecommunications carrier’ means any ‘provider of telecommunications services’ with the exception of aggregators, thus indicating that a ‘provider of telecommunications services’ would otherwise include aggregators.” While the CVAA does not provide similar guidance with respect to the definition of “provider” of ACS, we believe that the general principle that the Commission adopted in the *Section 255 Report and Order* – that “Congress intended to use the term “provider” broadly . . . to include all entities that make telecommunications services available” – has applicability here. Accordingly, we propose to find providers of ACS to include all entities that make ACS available in or affecting interstate commerce, including resellers and aggregators. We seek comment on this proposal.

We agree with the position put forward by the FCC. We see no reason to exclude aggregators from being covered by the CVAA. From the perspective of the consumers, they would not see a difference in the services offered by an aggregator or service provider. Individual services may be accessible, but when aggregated together there may be unforeseen accessibility issues. Without a clearly defined scope of responsibility, we anticipate that it would be difficult to come to a timely resolution of a complaint filed by an individual.

27. We also seek comment on additional issues relating to the meaning of “providers of advanced communications services.” We propose to find such providers to include entities that provide ACS over their own networks as well as providers of applications or services accessed (i.e., downloaded and run) by users over other service providers’ networks, as long as these providers make advanced communications services available in or affecting interstate commerce. We also seek comment on whether there are any circumstances in which a service provider would be responsible for the accessibility of third party services and applications or whether the liability provisions in Section 2(a) of the CVAA would generally preclude such a result. We seek comment on these proposed approaches and on whether the fact that we are required under Section 716(e)(1)(C) to “determine the obligations under this section of manufacturers, service providers, and providers of applications or services accessed over service provider networks” should have any bearing on how we interpret the meaning of providers of ACS. Specifically, we seek comment on the meaning of “providers of applications or services accessed over service provider networks” and how this term differs from “providers of advanced communications services.” Finally, we also seek comment on the meaning of “in or affecting interstate commerce.” Are there any circumstances in which advanced communications services that are downloaded or run by the user would not meet this definition?

We support the inclusive definition of providers.

In general, a service provider would not be responsible for the accessibility of third party services and applications, but there are a limited number of cases in which the service provider should be responsible. If the service provider up sells an option or application that is either branded as the service provider’s own or is the sole endorsed option or application in a category, then the service provider should be responsible for the accessibility of the option or application.

For example, if the basic device does not include a movie viewer, but the service provider offers a viewer as an upgrade or endorses a single third party’s viewer such that it is likely to be the de facto standard viewer, that viewer should be accessible.

While service providers should not be held responsible for accessibility of all third party applications, service providers are in the best position to encourage third party applications to be accessible. To this

extent, it is reasonable and recommended that service providers be required to include descriptions of the accessibility interfaces within their software developer kits for third party developers, as well as best practices for accessible user interfaces. Microsoft is a good example of an OS provider who has worked for consistent accessible design in the PC industry, though as far as we know this is voluntary, since the PC industry is not regulated in the same way as the wireless telecommunications industry.

28. We also seek comment on additional issues relating to the meaning of “providers of advanced communications services.” We propose to find such providers to include entities that provide ACS over their own networks as well as providers of applications or services accessed (i.e., downloaded and run) by users over other service providers’ networks, as long as these providers make advanced communications services available in or affecting interstate commerce. We also seek comment on whether there are any circumstances in which a service provider would be responsible for the accessibility of third party services and applications or whether the liability provisions in Section 2(a) of the CVAA would generally preclude such a result. We seek comment on these proposed approaches and on whether the fact that we are required under Section 716(e)(1)(C) to “determine the obligations under this section of manufacturers, service providers, and providers of applications or services accessed over service provider networks” should have any bearing on how we interpret the meaning of providers of ACS. Specifically, we seek comment on the meaning of “providers of applications or services accessed over service provider networks” and how this term differs from “providers of advanced communications services.” Finally, we also seek comment on the meaning of “in or affecting interstate commerce.” Are there any circumstances in which advanced communications services that are downloaded or run by the user would not meet this definition?

From our perspective we would classify “providers of applications or services accessed over service provider networks” and “providers of advanced communications services as sub-categories of the same broad category of “providers of advanced communications services”. In the case of providers of applications or services access over service provider networks there is a direct relationship between the consumer and the provider that is facilitated through and intermediary (network service provider) and potential third party software or application. While in the case of “provider of advance communication services” the intermediary and the provider of the application and service may be one and the same. An example would be Youtube.com or Paypal.com who are application/service providers that rely on a third party network and third party software application (browser) to deliver their service. The relations between the service provider and the consumer is a direct one on one relationship, but the accessibility of the service is determined not only by the design of the website but by the accessibility of the network and the third party browser. It is difficult to exclude any one party from the reach of the CVAA without seriously hampering the ability of the individual components of the system to achieve accessibility due to their inter-relationship.

In regards to Section 2(a)

Section 2(a) of the CVAA provides that the requirements of the CVAA do not apply to any person who “transmits, routes, or stores in intermediate or transient storage the communications made available through the provision of [ACS] by a third party” or who “provides an information location tool, such as a directory, index, reference, pointer, menu, guide, user interface, or hypertext link, through which an end user obtains access to such video programming, online content, applications, services, [ACS], or equipment used to provide or access [ACS].”

We find the definition too narrow and submit that the person who “transmits, routes, or stores in

intermediate or transient storage the communications made available through the provision of [ACS] by a third party” or who “provides an information location tool, such as a directory, index, reference, pointer, menu, guide, user interface, or hypertext link, through which an end user obtains access to such video programming, online content, applications, services, [ACS], or equipment used to provide or access” is an integral part of the process of creating an accessible ACS. We know that prominent examples have been discussed by the FCC in the context of the Net Neutrality proceeding. A video relay application over a wireless network is a good example of the inter-relationship between the consumer, the network service provider and the “ providers of advanced communications services” as defined in paragraph 28. The video relay software provides the application to facilitate the conversation between deaf individuals, but relies heavily on there being sufficient bandwidth and a high level of quality of service of that bandwidth to facilitate a quality of video streaming to facilitate the conversation. Without the appropriate quality of the network being available the application this service would not be viable. By upholding the exemption put forward under section 2(a) the FCC will not have the mandate to ensure accessible ACS in all cases.

28. Section 3(1) of the Act defines “advanced communications services” to mean (A) interconnected VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; and (D) interoperable video conferencing service.¹ That provision sets forth definitions for each of these terms.

29. Section 3(25) of the Act, as added by the CVAA, provides that the term “interconnected VoIP service” has the meaning given in section 9 of the Commission's rules, as such section may be amended. Section 9, in turn, defines interconnected VoIP as a service that (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user’s location; (3) requires Internet protocol-compatible CPE; and (4) permits users generally to receive calls that originate on the public switched telephone network (“PSTN”) and to terminate calls to the PSTN. We propose to continue to define interconnected VoIP in accordance with section 9 of the Commission's rules. We seek comment on this proposal.

30. Section 716(f) of the Act provides that “the requirements of this section shall not apply to any equipment or services, including interconnected VoIP service, that are subject to the requirements of Section 255 on the day before the date of enactment of the Twenty-First Century Communications and Video Accessibility Act of 2010.” In the October Public Notice, the Bureaus sought comment on how to address the accessibility obligations of equipment that is used to provide both telecommunications and advanced communications services and how to treat interconnected VoIP. As some commenters noted, this language clearly provides that interconnected VoIP equipment and services shall remain subject to Section 255. In its comments, AT&T states that “the Commission should subject multi-purpose devices to Section 255 to the extent that the device provides a service that is already subject to Section 255 and apply Section 716 solely to the extent that the device provides ACS that is not otherwise subject to Section 255.” We seek comment on AT&T’s interpretation and also seek comment on alternative interpretations of Section 716(f).

We understand the interpretation that AT&T is making in regards to Section 716(f).

We don't see a practical advantage to service providers and manufacturers in interpreting the clause this way from the perspective of our users though. Under the current Section 255 guideline, many of the users that use our assistive technology products currently cannot access the end user products (cellphone, smartphone). The rationale that has been put forward in the past by the manufacturers as to why there are no solutions was that it is was undue economic burden. As engineers and developers we

know that solutions are technically feasible. We expect that through the new standard of “achievable” that is being put forward by the CVAA, solutions will finally be developed, adopted and deployed that meet the needs of our users. Given that it is often more challenging to design accessible ACS as their interfaces are often more complex than those needed to access older services (strictly voice services), we don't see the need to make the distinction that is being put forward by AT&T. At the same time, we do not object to the distinction provided the CVAA applies to ACS part of devices that are multipurpose, as appropriately designed accessible end user product will also allow our users to access the services covered under the Section 255 guidelines.

To put it another way, we would interpret 716(f) to mean that devices already on the market on the day before the date of enactment of the Twenty-First Century Communications and Video Accessibility Act of 2010, and in compliance with Section 255 at that time, would not be required to be upgraded or redesigned to comply with the CVAA. But substantial updates of existing models and wholly new models must be in compliance with CVAA and meet the new standard of “achievable”. 716(f) should not be taken to mean that any new or substantially updated device having voice features should only meet the requirements Section 255 simply because it has voice features. This would undermine virtually all accessibility benefit to be gained by the CVAA. Nor should it be possible to avoid the higher standard by gaming the system, such as by reusing old model names or numbers for substantially updated or wholly new devices.

31. Section 3(36) of the Act, as added by the CVAA, states that the term “non-interconnected VoIP service” means a service that “(i) enables real-time voice communications that originate from or terminate to the user’s location using Internet protocol or any successor protocol; and (ii) requires Internet protocol compatible customer premises equipment” and that “does not include any service that is an interconnected VoIP service.” We propose to define “non-interconnected VoIP service” in our rules in the same way and seek comment on this proposal.

32. TIA asserts that “offerings with a purely incidental VoIP component (e.g., gaming systems or private internal enterprise systems) . . . are . . . not subject to the Accessibility Act in the first instance.” We propose to treat any offering that meets the criteria of the statutory definition set forth above as a “non-interconnected VoIP service,” and note that the statutory definition of non-interconnected VoIP does not exclude offerings with a purely incidental VoIP component. We seek comment on this proposal. We also note that, as discussed below, the statute allows the Commission to waive the requirements of Section 716 for equipment or services “designed primarily for purposes other than using advanced communications service.” In addition, as discussed below, Section 716(i) provides that the requirements of this Section do not apply to “customized equipment or services that are not offered directly to the public.

We understand the distinction being put forward by the TIA in terms of incidental VoIP services and agree with exemptions for the stated examples, but we would also like to submit an example where we feel the CVAA should apply. Under the definition put forward in paragraph 31, campus wide VoIP services that would allow employees at the same campus to communicate would be exempt from the CVAA. In our own experience interacting with business telephone systems is a barrier to people with specific disabilities from returning to work. By exempting non-interconnected VoIP services from the CVAA, the legislation inadvertently supports a barrier to fully workplace inclusion for people with disabilities. We also note that Section 508 would compel employers to provide reasonable accommodations for employees with disabilities.

33. Section 3(19) of the Act, as added by the CVAA, states that the term “electronic messaging

service” “means a service that provides real-time or near real-time non-voice messages in text form between individuals over communications networks.” In accordance with this definition, we propose to define this term in the Commission's rules as “a service that provides real-time or near real-time non-voice messages in text form between individuals over communications networks.” Consistent with language of the Senate and House Reports, we also propose that electronic messaging service includes “more traditional, two-way interactive services such as text messaging, instant messaging, and electronic mail, rather than . . . blog posts, online publishing, or messages posted on social networking websites.” We seek comment on these proposed definitions. For reasons similar to those discussed below in the section on interoperable video conferencing services at paragraph 35, *infra*, we believe that Internet protocol relay (“IP Relay”) services that otherwise fit the definition of “electronic messaging services” are services subject to the requirements of Section 716.

We agree with the definition put forward by the FCC, but believe the definition may not be broad enough. MMS (multimedia message service) is an extension of the electronic messaging services defined. Multimedia Messaging Service is a store and forward messaging service that allows subscribers to exchange multimedia files as messages. MMS supports the transmission of various media types: text, picture, audio, video, or a combination of all four. The originator can easily create a Multimedia Message by snapping a photo with the phone camera, or by using images and sounds stored previously in the phone (or downloaded from a web site). We understand that the underlying technology for sending the messages is different from the other forms of electronic messaging, but consumers do not make the distinction for the various types of technologies.

We also wonder whether broadcast technologies, which are not two-way technologies, such as Twitter, fall under this definition.

34. We also seek comment on the assertion of several commenters that the phrase “between individuals” in the above definition precludes the application of the accessibility requirements to communications in which no human is involved, such as automatic software updates or other device-to-device or machine-to-machine communications. In addition, we seek comment on TIA’s assertion that “services and applications that merely provide access to an electronic messaging service, such as a broadband platform that provides an end user access to an HTML-based e-mail service, are not covered.”

We agree that the terminology “between individuals” precludes the applications of accessibility requirements to communications in which no humans are involved and we strongly support an expansion of the definition to include these types of transactions. SMS based payment methods would be a concrete example of this type of interaction. Some SMS payment methods use embedded links in the text message to take the user to a website to complete the transaction. As there is currently no standard by which to incorporate alternative tags to the link, any screen reader would simply read out loud the <http://.....> address, which can be confusing. This is an example in which interstate commerce is being conducted over electronic message in which no individual is involved, but a two way interaction is being conducted.

We support a definition that defines electronic messages as between an individual and another individual or electronic service that creates a two way interaction.

We agree with the assertions put forward by CEA, Microsoft, ITI and T-mobile that machine to machine interactions should not be included in the CVAA scope.

In regards to the TIA's assertion that "services and applications that merely provide access to an electronic messaging service, such as a broadband platform that provides an end user access to an HTML-based e-mail service, are not covered.", as we have mentioned previously in this document the quality of the ACS can be dramatically effected by the quality of the network. As networks are actively managed and as the basis for the net neutrality discussions, we do not see a way to exclude networks from the scope of the CVAA.

As to the specific TIA example, an HTML-based email service that is accessed through a browser would already be accessible under the CVAA to the extent that the OS and browser are required to be accessible. Third party websites, including a third party HTML based email website, would not be governed by the CVAA or the responsibility of the ACS. That said, echoing our earlier comments, if the specific HTML-based email service is branded as the ACS provider's solution, or is the sole such source offered or endorsed by the ACS provider such that it becomes an essential service or de facto standard, then it should be included in the scope of the CVAA.

35. Section 3(1) of the Act, as added by the CVAA, defines the term "advanced communications services" to include "interoperable video conferencing service," which, in turn, is defined in Section 3(27) as "a service that provides real-time video communications, including audio, to enable users to share "information of the user's choosing." We note that while earlier versions of the legislation did not include the word "interoperable" in the definition of the term "advanced communications services," the definition of "interoperable video conferencing services" in the enacted legislation is identical to the definition of "video conferencing services" found in earlier versions. In addition, language in the Senate Report regarding "interoperable video conferencing services" is identical to language in the House Report regarding "video conferencing services." Both the Senate Report and the House Report state, for example, that "[t]he inclusion . . . of these services within the scope of the requirements of this act is to ensure, in part, that individuals with disabilities are able to access and control these services" and that "such services may, by themselves, be accessibility solutions." In light of the above symmetries between the earlier and later versions of this definition, as well as the reports prepared by each chamber of Congress, we will first seek comment on the meaning of "video conferencing service" and then on the meaning of "interoperable" in this context.

41. We also seek further comment on whether webinars are a covered service. TIA states that "a service that enables users to share information necessarily implies a two-way service, not a broadcast-style webinar video." The IT and Telecom RERCs disagree, however, asserting that webinar systems should be subject to Section 716 because these systems are "not designed to broadcast information but rather to provide user interaction in the form of chat, voting, and hand-raising, etc."

We support the assertion that webinars are two way interactions in which the user has the opportunity, but not the obligation to interact. As a result we feel that they should fall under the scope of the CVAA.

In regards to both paragraphs 35 and 41, the CVAA does not require that every third party website or application delivered through ACS be accessible. We would continue to apply our test for responsibility of the provider of ACS, that if a webinar system (or video conferencing, etc.) is branded by the provider or is the sole third party solution endorsed by the provider such that it is an essential feature or de facto standard, then the provider must ensure accessibility under the CVAA.

42. Next, we seek comment on Consumer Groups’ assertion that “the scope of the [CVAA] should not be limited by the type of communication conveyed by the video conferencing service (i.e., uni-, bi-, or multi-directional), but by the fact that the service is capable of providing real-time communications that enable users to share information.”¹ Consumer Groups suggest, for example, that the fact that “video conferencing services may be used to leave a ‘video mail’ (similar to a ‘voice mail’) message,” does not preclude the service’s coverage under the CVAA. Consistent with our seeking comment on how to treat multi-purpose devices at para. 30, *supra*, we seek comment on Consumer Groups’ suggestion. We also seek comment more generally on whether services that otherwise meet the definition of “provid[ing]. . . real-time video communications, including audio, to enable users to share information of the user’s choosing” but that also provide non-real time functions (such as video mail) are covered under the CVAA.³ If so, are the non-real-time functions or near-real-time functions of such a service (such as video mail) subject to the requirements of Section 716? If such functions are not covered, should we, similar to what we did in the Section 255 context, assert our ancillary jurisdiction to cover video mail? Specifically, the Commission employed its ancillary jurisdiction to extend the scope of Section 255 to both voice mail and interactive menu services under Part 7 of the Commission's rules because “the failure to ensure accessibility of voicemail and interactive menu services, and the related equipment that performs these functions, would [have] seriously undermined the accessibility and usability of telecommunications services required by sections 255 and 251(a)(2).” Similarly, we seek comment on whether the exclusion of video mail from our rules governing Section 716 would hinder our ability to ensure the accessibility and usability of advanced communications services.

We support the assertion that “the scope of the [CVAA] should not be limited by the type of communication conveyed by the video conferencing service (i.e., uni-, bi-, or multi-directional), but by the fact that the service is capable of providing real-time communications that enable users to share information.” We further would suggest that the definition be expanded to cover non-real time services. As mentioned previously in our comments to Paragraph 34 on electronic messaging, the issue of MMS have not been clearly defined as of yet in the CVAA. Video mail could also be interpreted as a form of electronic message service as well as a video conferencing service. If dealt with strictly under the electronic message service we support the assertion that video mail and MMS should be covered under the MMS. By definition, text messaging services are not real time services. The text messages are normally sent in the control packets of the network protocol when there are no network control codes being sent. Text messages must wait until there are unused control packets, so by definition the process is not real time. In busy networks the text message may take minutes to arrive and theoretically longer in a catastrophe situation where the network is over extended. We support the assertion that the FCC will not have the ability to ensure the accessibility and usability of ACS if video mail is excluded from the scope of the CVAA.

43. TIA also asserts, similar to the argument that it made with respect to the scope of VoIP services covered under the CVAA, that “products that offer a video connection that is incidental to the principal purpose and nature of the end user offering fall outside the definition as well.” We believe the same analysis that we propose to apply to the scope of non-interconnected VoIP should apply here. We therefore propose to classify any offering that meets the criteria of the statutory definition set forth above as a “video conferencing service” and note that the statutory definition does not exclude “products that offer a video connection that is incidental to the principal purpose and nature of the end user offering.” Again, we note that this issue may be

relevant to our waiver authority set forth in Section 716(h), discussed *infra* at paras. 52-60, or the exclusion of customized equipment or services pursuant to Section 716(i). We seek comment on this proposed classification.

We agree with the FCC position on this issue. We believe it would be difficult to define when a service is incidental. For example if a individual was making an online purchase and required customer support which is subsequently provided through a video conferencing link, the customer support session could be interpreted by definition to be incidental to principal function which was to complete a transaction. From a practical perspective, though, the customer support may be critical to the customer being able to complete the transaction. Unless there is way to clearly define what is “incidental”, we see this exemption creating more confusion among service providers, manufacturers and consumers.

We would also make a distinction as to who is responsible for the VoIP portion of the product. To use the same example, if the user was making an online purchase through a website, and the website provided its own VoIP solution, then the ACS provider would not be responsible. If the VoIP solution is provided or the de facto standard endorsed by the ACS provider, then the ACS provider must assure its accessibility.

48. Section 716(i) states that the provisions of this Section “shall not apply to customized equipment or services that are not offered directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.” While the Senate Report did not discuss this provision, the House Report explains that Section 716(i) is a “narrow exemption” that encompasses “equipment and services [that] are customized to the unique specifications requested by an enterprise customer.” It goes on to state that this provision “permit[s] manufacturers and service providers to respond to requests from businesses that require specialized and sometimes innovative equipment to provide their services efficiently” and is “not intended to create an exemption for equipment and services designed for and used by members of the general public.”

49. Several other commenters urge us to find that manufacturers and service providers are subject to Section 716 only to the extent that they are offering their equipment and services directly to the public. In contrast, the RERC-IT urges us to “carefully limit the exception for customized equipment and services” and to cover equipment and services that have been customized in “minor ways” and “that are made available to the public indirectly through employers, schools, or other institutions.” The RERC-IT also urges that we define “public” in this context to “include public institutions, such as educational institutions and government agencies.”

50. We believe that the guidance offered by the House Report evinces Congress’s intent that Section 716(i) be narrow in scope and applicable only to customized equipment and services offered to business or other enterprise customers, rather than to equipment and services “used by members of the general public.” We seek comment on this analysis, as well as on the extent to which the equipment and services used by private institutions but made available to the public, such as communications equipment and services used by libraries and schools, should be covered by the CVAA. More specifically, we seek comment on what additional guidance by the Commission is needed to define equipment and services that are “used by members of the general public.” Finally, we seek comment on the extent to which Section 716 covers products and services that are offered to the general public, but which have been customized in minor ways to meet the needs of private entities.

We find the phrasing of Section 716(i) that states that the provisions of this Section “shall not apply to customized equipment or services that are not offered directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used” problematic. As mentioned in the discussion this exemption would apply to enterprise customers. We would like to point out that enterprise customers may have employees that have a disability and that under Section 508 the enterprise would have an obligation to accommodate that employee. The fact that the employee is not covered under the definition of public has the potential to create two classes of people with disabilities. We recognize that there are incidences where there is no human interaction with the modified equipment, in which case the CVAA does not apply, but in the case where there is human interaction by an employee we feel the CVAA should apply, so as to not create barriers to employment for people with disabilities.

We agree with this interpretation of this clause:

“It goes on to state that this provision “permit[s] manufacturers and service providers to respond to requests from businesses that require specialized and sometimes innovative equipment to provide their services efficiently” and is “not intended to create an exemption for equipment and services designed for and used by members of the general public.” “

We further support the RERC-IT position that the FCC

“carefully limit the exception for customized equipment and services” and to cover equipment and services that have been customized in “minor ways” and “that are made available to the public indirectly through employers, schools, or other institutions.” The RERC-IT also urges that we define “public” in this context to “include public institutions, such as educational institutions and government agencies.”

51. Consistent with Motorola's assertions, we propose to find Section 716's definition of advanced communications services not to extend to public safety communications networks and devices and find that these networks and devices are “equipment and services that are not offered directly to the public.” We agree that the Commission's recent proposal not to apply its hearing aid compatibility requirements to public safety equipment is instructive here. We note, however, that employers still have obligations under the Americans with Disabilities Act, and agree with CSD that “to the extent possible, public safety systems should be designed to accommodate the needs of deaf [and] hard-of-hearing employees and employees with other disabilities.” We seek comment on this analysis.

We agree with the FCC analysis and support the position that employers still have a duty to accommodate employees with disabilities. We recognize that public safety equipment is a very specialized area and the number of employees employed in the sector may not be large and therefore the economic feasibility to be covered under the CVAA may not exist.

53. Both the Senate and House Reports state that Section 716(h) “provides the Commission with the flexibility to waive the accessibility requirements for any feature or function of a device that is capable of accessing advanced communications services but is, in the judgment of the Commission, designed primarily for purposes other than accessing advanced communications.” Consistent with the statutory language and legislative history, we propose to focus our inquiry on

determining whether the offering is designed primarily for purposes other than using ACS.

54. In making our waiver assessment, Microsoft urges that we consider the “core features of the product or service as designed and marketed,” and states that “[v]ideo gaming consoles and their associated online services, which do not have communications as their primary purpose, are just the kind of products and services that Congress envisioned when it gave the Commission broad authority to grant waivers.” ESA agrees that we ought to consider how products are designed and marketed in considering whether a waiver is applicable, and asserts that the accessibility provisions in Section 716 should not apply to gaming products. While we agree with commenters that the “core” function of an offering is an issue relevant to our analysis, we also agree with the IT and Telecom RERCs’s suggestion that the “primary feature of a multi-feature device or service [may] vary from person to person.” Furthermore, we do not believe the fact that a “core” function of a device is to play games to be dispositive of the issue of whether such device is entitled to waiver under Section 716(h). As the IT and Telecom RERCs note, “[g]aming is used for education, rehabilitation, and social interaction [and] . . . should not be exempted simply because the basic feature is a game.” We seek comment on this analysis. We also seek comment on AFB’s contentions that “how [a product] is marketed” and “[how] most people think of the device” should not be relevant to our analysis; rather, “[t]he issue is whether the advanced communications features and functions can be operated apart from the device’s [primary] functions.

55. ESA also suggests that why consumers access the gaming products is an important consideration: “Consumers do not play an online game, [for example], as a means of accessing chat – a consumer in search of a general purpose messaging service will find simpler, more direct alternatives than navigating through the various features of a gaming device or online game service.” We seek comment on this assertion and on whether how consumers actually use the communications component of a multi-purpose device or service is relevant to our assessment of the primary purpose for which a device or service was designed. In addition, we seek comment on ESA’s proposal that we consider as part of our waiver determination whether the offering is designed for a “specific class of users who are using the ACS features in support of another task.”

Gaming is an area where a technology is gradually slipping into the ACS tent. As connectivity becomes more ubiquitous, we would expect to see many devices we do not currently think of as communication devices become defined as such. Writers have talked about the connected kitchen, for example, where a connected refrigerator orders milk when you run out. One could imagine that over time such a device could add a communication feature to connect the person (not just the machine) with the market. Should this communication, some day, be required to be accessible under the CVAA? Gaming devices with communication features are already upon us.

Legislation as broad as the CVAA, though, may not happen as often as technologies improve. We would like to see CVAA scoped to be able to assure accessibility for communication technologies that come on line, but we would not like to see it hamper innovation or economic opportunities unduly. Since we deal with clients with a variety of disabilities requiring a variety of accommodations, we know the challenges of making every device accessible to every person.

Therefore, the CVAA should be scoped to be able to assure accessibility of all human communication, but include a process of waivers and continuous re-evaluation to address new technologies as they appear or as they gain significance in the spectrum of communication opportunities. For us, the distinction would not be whether or not the ACS features are primary to the purpose of the product, but

whether in practice the ACS features become an important part of the human experience, and in that case, disabled people should have a similar experience to able bodied people. That is, when able-bodied people order their milk through their refrigerator, then disabled people should be able to, too.

As to whether gaming should be regulated today: We recognize that gaming is an important human activity, and would like to see all disabled people have access to it. But we aren't aware of any gaming accessibility regulation, and do not feel that the ACS features of games should be used as a weapon to make gaming itself accessible. But to the degree that ACS features become a significant communication route for more and more people, CVAA should be able to step in. We don't know enough about the current state of gaming to have an opinion as to whether CVAA should step in now or grant a waiver for the time being.

56. We also seek comment on the process that we should adopt for determining whether to waive the requirements of Section 716 and specifically on the extent to which we need to adopt any procedures to ensure that such process is efficient and effective. Alternatively, we seek comment on whether we should handle waivers as we have in the normal course pursuant to Section 1.3 of the Commission's rules. We agree with commenters who state that we should "incorporate protections for confidential information" and propose that parties seeking waivers be able to request confidential treatment of information pursuant to Section 0.459 of the Commission's rules. At the same time, we agree with AAPD that, to the extent possible, the process should be "transparent and public," and propose to seek comment on any waiver petition that we receive pursuant to Section 716(h). We seek comment on these proposals.

57. We also recognize the need, after appropriate consideration, for making waiver determinations in an "expeditious manner," although we propose not to "incorporate an automatic grant date for waiver requests" as TIA urges. We note that TIA requests that "if the Commission fails to timely act on a good faith waiver request, the company in question [should] be able to initiate the product or service without penalty, and incorporate accessibility features in a reasonable time frame prospectively." Given that such a "deemed granted" provision is not contemplated by the statute, we do not intend to propose the framework outlined by TIA. We seek comment on this analysis.

58. In addition, in light of the fact that, as the NFB observes, "[t]echnology is ever changing and the 'primary purpose' of multi-purpose products is always evolving," we seek comment on AAPD's assertion that "there should be no permanent waivers." Should waivers be temporary, and, if so, what should the duration of the waivers be? If we decide that waivers should only be temporary, should we establish a process for renewing waivers, and, if so, should the factors we consider for renewal vary from the factors we consider for the original waiver grant?

We support temporary, fixed length waivers, with a renewal process. We support a process whereby a waiver can be reviewed mid-term in the light of complaints from consumers and mounting evidence of the inaccessibility of a product or service that has wide distribution and increasing importance to individual American to participate full in society whether is a transaction, digital democracy or access to information through ACS.

In an area where technology and products are continuously changing and evolving, permanent waivers do not make sense.

59. We also seek comment on whether we should consider waivers for a "class" of services or

equipment under this section and what specific showing is needed to justify such waivers. Several commenters suggest that we should grant blanket waivers in order to support innovation and competition. For example, Microsoft states that “[g]ranting prospective categorical waivers is essential to encourage manufacturers and service providers to build communication features into services and equipment devices that do not have as their core purpose advanced communications . . . [f]ostering this innovation will enrich the communications choices and solutions available to all consumers, including those with disabilities.” In contrast, many consumer commenters suggest that blanket waivers are never appropriate, given rapid technological advancement and the belief that “much accessibility and usability will be accomplished through software and related changes.”

60. We seek further comment on the specific factors that we should consider in determining whether a particular “class” of services or equipment should be granted a waiver. How can we determine what services or equipment are similarly situated enough to be designated a “class”? Is it possible to structure a blanket waiver in such a way as to address consumers’ concerns that any such waiver could quickly become outdated? Are there specific classes of services or equipment that we should consider waiving in our final rules on Section 716? If we do decide to grant waivers for an entire class of services or equipment, should such waivers be permanent or temporary? We note, for example, while ACB opposes blanket waivers, it recommends that if the Commission does grant them, that it limit the term to 12 months. As discussed above (for individual waivers), should we establish a renewal and/or revocation process for categorical waivers?

We would like to point out that “[f]ostering this innovation will enrich the communications choices and solutions available to all consumers, including those with disabilities” only applies if the innovation is accessible to the consumer with a disability, so to exempt classes of products and services in the name of innovation without regard for accessibility is more likely to lead to a class of inaccessible products and services as opposed to more choices for those particular consumers. We have seen this in the roll out of products and service in the last decade—innovation in telecommunications has been healthy, but disabled people have been left out. If as the CVAA intended manufacturers and service providers are adopting accessible design strategies at the inception of the product or service there should be no need for the exemption. In short, if industry is not compelled to incorporate accessibility, innovation is more likely to skirt around accessibility. We do not believe exemptions for classes of ACS will benefit people with disabilities.

67. Service providers and manufacturers must meet the accessibility requirements of Section 716 “unless [those requirements] are not achievable.” Section 716(g) of the Act defines the term “achievable” to mean “with reasonable effort or expense, as determined by the Commission.” As noted supra at paragraph 5 and note 18, Section 716 requires a higher standard of achievement than Section 255. Under Section 255, covered entities must ensure the accessibility of their products if it is “readily achievable” to do so, which the statute defines by cross-reference to the ADA to mean “easily accomplishable and able to be carried out without much difficulty or expense.”

68. Specifically, Section 716(g) requires the Commission to consider the following factors in making determinations about what “constitutes reasonable effort or expense”:

(1) the nature and cost of the steps needed to meet the requirements of this [S]ection with respect to the specific equipment or service in question; (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or

service in question, including on the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.

We support the higher standard set forth in the definition of “unless those requirements are not achievable”. In their interactions with manufactures and services providers, assistive technologies have at times not come to market because the accommodation required on the part of the service provider or manufacturer were considered an economic burden, though technically feasible. As the HAC (Hear Aid Compatibility) process has proven the definition of economic burden needs to be re-evaluated to facilitate more accessible end user equipment and service coming to the market.

We support using all four factors in the evaluation of the whether an accommodation is achievable. We feel that the term “economic burden” also needs to be more clearly defined. For example, screen reading technology comes standard on some end user equipment and the end user does not incur additional costs to access those features. Other phone manufacturers defer that functionality to third party vendors that charge up to \$300 for that same technology. What is not an undue burden to one company is claimed to be an undue burden to other manufacturers. The FCC should apply a consistent rule across manufacturers for a given accommodation.

69. We seek comment on each of these factors. At the outset, we note that the Senate and House Reports state that we should “weigh each factor equally when making an achievability determination.” The House Report also states that in implementing Section 716, the Commission should “afford manufacturers and service providers as much flexibility as possible, so long as each does everything that is achievable in accordance with the achievability factors.” Consistent with this legislative history, we generally agree with AT&T that an assessment of what is achievable should be “fact-based, flexible, and applied on a case-by-case basis,” but also agree with NFB that flexibility should not be so paramount that “accessibility is never achieved.” The House Report also states that “the Commission [should] interpret the accessibility requirements in this provision the same way as it did for [S]ection 255, such that if the inclusion of a feature in a product or service results in a fundamental alteration of that service that it is per se not achievable to include that function.” Accordingly, we agree with commenters who urge us to interpret the achievability requirements consistent with this directive. We seek comment on this analysis.

We agree with the AT&T comments that the assessment of what is achievable should be “fact-based and flexible”. However we do not believe given the number of new products and services that are introduced each year that the assessment should be made on a case by case basis. Rather we support that products and services being evaluated on a category by category basis. Through the adoption of standards, we believe that it is possible to achieve accessibility in a category by category basis. The telecommunications industry manufactures over 600 million phones a year, many which are distributed to the United States and hundreds of new designs are introduced each year, to deal with them on a case by case basis for every accommodation requested would be an overwhelming task for the FCC and create a bottleneck and expense for manufacturers, service providers, and assistive technology developers. Exceptions to device categories and accommodations should be available but rare.

We agree with the assertion that “if the inclusion of a feature in a product or service results in a fundamental alteration of that service that it is per se not achievable to include that function.” But we recognize the need for a better definition of what constitutes a fundamental change to the service so as

to not create confusion around the process.

70. We also seek comment on whether or to what extent we have the discretion to weigh other factors not specified in the statute in making an achievability determination. ITI urges us to do so, and specifically asks us to consider “how the lack of economies of scale and scope can sometimes hinder the development and deployment of accessibility solutions.” We note that Congress specifically set forth in Section 716 the factors that we must consider in determining whether accessibility is achievable, and directed us to weigh these factors equally. In light of the statute and this legislative history, we propose to only consider the factors enumerated in the statute in making our achievability determinations. We would note, however, that we propose to construe the factors broadly and weigh any relevant considerations in determining their meaning. We believe, for example, that the “lack of economies of scale and scope” could be a relevant consideration in determining the meaning of the second factor, “the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies.” We seek comment on this analysis.

We acknowledge ITI's concern that “a the lack of economies of scale and scope can sometimes hinder the development and deployment of accessibility solutions.” At the same time we do not want this to be a blanket justification for not doing anything to try to promote accessibility. Under the old section 255 guidelines, we have noticed a reactive approach to accessibility by manufacturers and service providers as opposed to a pro-active one. Manufacturers have responded to complaints as opposed to pro-actively trying to identify issues for disability groups and working to expand the number of disabilities that can accommodate through their end user products. Assistive Technology developers and manufacturers are willing to play their part in developing solutions, but the manufacturers and service providers must standardized interfaces to their products. Attempts to move towards this in the past has been met with resistance and the justification of “undue economic burden” has been used as a reason not to proceed. By over-applying that justification, no new accessibility solution would be created. We noted that in the past screen reading technology for end user products was considered to have a lack economies of scale, but that Apple ships a screen reading product with each of its iPhones at no extra cost the end user. The same is true of some Android phone designs. Correspondingly, other manufacturers have relied on third party vendors to supply the functionality and the consumer can pay up to \$300 to gain that functionality. What was an undue burden for one manufacturer was an opportunity for another, and by incorporating that accommodation into each one of its handsets, the economy of scale was achieved. We have some concerns that there may need to be a more explicit definition of undue burden and economy of scale in order to implement the CVAA consistently.

71. Section 716(g)(1) of the Act states that in determining whether the statutory requirements are achievable, the Commission must consider “[t]he nature and cost of the steps needed to meet the requirements of [716(g)] with respect to the specific equipment or service in question.” The Senate Report requires the Commission to consider “the nature and cost of the steps needed to make the specific equipment or service in question accessible” and states that “[t]he Committee intends for the Commission to consider how such steps, if required, would impact the specific equipment or service in question.” The House Report reiterates the need for the Commission to focus on the “specific product or service in question” when conducting this analysis. TIA and T-Mobile contend that in determining whether accessibility is achievable for the product at issue, the Commission should not consider the accessibility of a competing product. NFB disagrees, and offers as an example, the need to take into consideration the ability of one company to

provide “cost effective text-to-speech applications . . . that make the interface of a touch-screen wireless phone fully accessible to a blind user” because such capability demonstrates that “[t]he lack of accessible options in the marketplace for blind consumers is clearly not due to a lack of accessible technology.” We believe that it is appropriate for us to consider whether accessibility has been achieved by competing products, but agree with T-Mobile that, in doing so, we must also consider the unique circumstances of each covered entity. We seek comments on this analysis and also seek comment on whether we should define this standard with more specificity in order to make sure that our standards are fully enforceable. We further request input on ACB’s suggestion that we consider the totality of the steps that a company needs to take in our achievability analysis, as well as the need to compare the cost of making a product accessible with the organization’s entire budget.

We agree with the NFB position on this issue, that competing products should be considered when trying to determine if accessibility is achievable. The ACS space is a competitive space--a manufacturer would not introduce a specific feature if they did not think that it was economically viable. While it should not be to the sole consideration when making the determination as suggested by the FCC we would contend that is a significant factor and should be weighed heavily in the final determination. Competing products should be considered relevant by default; the burden should be on the manufacturer seeking an exception to prove that his case is not comparable to competitors’ situations.

We also agree with the ACB’s suggestion that the FCC consider the totality of the steps that a company needs to take in our achievability analysis, as well as the need to compare the cost of making a product accessible with the organization’s entire budget.

72. The second factor in determining whether compliance with Section 716 is “achievable” requires the Commission to consider the “technical and economic impact of making a product or service accessible on the operation of the manufacturer or provider, and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies.” We seek comment on how we should assess this factor and how our analysis should take into account the development and deployment of new communications technologies.

Type of Operations

73. The third factor in determining whether compliance with Section 716 is “achievable” requires 1.the Commission to consider “[t]he type of operations of the manufacturer or provider.” The Senate and House Reports state that this factor permits “the Commission to consider whether the entity offering the product or service has a history of offering advanced communications services or equipment or whether the entity has just begun to do so.” TIA asserts that “a company’s status as a comparatively new market entrant in the advanced communications marketplace, regardless of what other products it offers, must be accounted for in assessing whether a particular accessibility feature is achievable.” We seek comment on the extent to which we should consider an entity's status as a new entrant in the ACS market in conducting our achievability analysis. How should a manufacturer or service provider's recent entry into this market affect our analysis if such entity has significant resources or otherwise appears capable of achieving accessibility? What other criteria should we use in assessing this factor as part of our achievability analysis?

If the manufacturers and service providers in cooperation with the disability community and assistive technology developers such as ourselves develop, adopt and promote accessibility standards for

interfaces to end user products and services, we do not see the adoption of those standards as a significant barrier to recent entrance into the ACS market. Provided that existing manufacturers and service providers are all bound by the CVAA we see no reason to given new entrant a competitive advantage over established incumbent manufacturers and service providers. Provided the accessibility mandate is incorporated in the design processes as outlined in other part of the FCC document, we do not see accessibility being an significant economic disincentive.

74. The fourth factor in determining whether compliance with Section 716 is “achievable” requires the Commission to consider “[t]he extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.” The Senate and House Reports state that “the Commission [should] interpret this factor in a similar manner to the way that it has implemented its hearing aid compatibility rules.” The Commission’s rules governing hearing aid compatibility (“HAC”) obligations for wireless devices require manufacturers and service providers to ensure that a range of phones comply with the HAC standards. Specifically, those rules direct such companies to ensure that hearing aid users be able to select “from a variety of compliant handset models with varying features and prices.”

75. Several industry commenters read Congress’s directive to incorporate this criteria into the achievability analysis, in conjunction with the legislative history and Section 716(j), as an outright rejection of the finding in the Section 255 Report and Order to require covered entities to consider the accessibility of every product. On the other hand, the RERC-IT states that “if every function of a particular device can achievably be made accessible to every disability, every function should be made accessible.” We question whether any of these proposed interpretations appropriately take into account the more balanced approach contemplated by Congress, which gives equal weight to each of the four achievability factors and applies them on a flexible, case-by-case basis. We do, however, generally agree with TIA that this factor should be interpreted to “give individuals with disabilities meaningful choices in accessible products, and to reward those companies who provide such choices.” While Section 716’s flexible approach is not amenable to the fixed number or percentage approach the Commission has employed in the HAC context, Section 716(g)(4) seems to require that where a company has made a good faith effort to incorporate accessibility features in different products across multiple product lines, this should count favorably toward a determination that the company is in compliance with Section 716 for the product in question. Where companies offer a range of accessible products that perform different functions at varied price points, consumers with disabilities will have a range of devices from which to make their purchases. In those instances, so long as other criteria under the achievability analysis are met, a company charged with having an inaccessible product might not have to make that specific product accessible. This approach would appropriately reward companies that make substantial investments in accessible products, while allowing flexibility to account for marketplace realities.

76. Accordingly, we seek comment on whether covered entities generally should not have to consider what is achievable with respect to every product, if the entity offers consumers with the full range of disabilities meaningful choices through a range of accessible products with varying degrees of functionality and features, at differing price points. At the same time, we also seek comment on whether there are some accessibility features that are so important or easy to include (like a “nib” on the 5 key) that they should be deployed on every product, unless it is not achievable to do so. If so, we seek comment on whether we should identify in our rules some of these specific accessibility features that are currently available, to provide clarity on what

accessibility features should be universally deployed, if achievable. We further express our general belief that Section 716(j), supra note 217, does not preclude our identifying “easy” accessibility features that must be included on every product, if achievable. While the Senate Report did not address this specific provision, our belief is confirmed by the House Report, which states that the Commission’s approach to Section 255 is consistent with Section 716(j). Finally, we seek comment on whether we should define with more specificity the meaning of “varying degrees of functionality and features” and “differing price points.” In particular, we seek comment on ACB’s assertion that “[i]t is essential that manufacturers and service providers make available a range of devices that fit various price ranges along with corresponding accessible features . . . this may be accomplished by dividing devices into classes and making certain that each class has at least one option that is fully accessible.”

We find the approach put forward by the FCC problematic as it may require the end user have to purchase a number of distinct end user products in order to achieve full access to the range of service offered by the service provider. For the consumers with disabilities that we deal with this creates a undue economic burden in addition to the fact there is physical restriction on the number of devices they can carry with them and can physically interact with given their potentially restricted dexterity, physical ability and speech capabilities. We find the assertion that the manufacturer should be considered to comply if it offers “varying degrees of functionality and features, and offered at differing price points” does not address the root of the issue. The issue is that an individual user wants to access a range of service through a specific device. The fact that the manufacturer offers access to a specific service on a specific device and that the end user may have to purchase multiple devices to get access to services is a material barrier to that particular user.

In regards to the assertion that:

At the same time, we also seek comment on whether there are some accessibility features that are so important or easy to include (like a “nib” on the 5 key) that they should be deployed on every product, unless it is not achievable to do so. If so, we seek comment on whether we should identify in our rules some of these specific accessibility features that are currently available, to provide clarity on what accessibility features should be universally deployed, if achievable. We further express our general belief that Section 716(j), supra note 217, does not preclude our identifying “easy” accessibility features that must be included on every product, if achievable.

We do support the identification and universal deployment accessibility features. We do point out that some of those features still need to developed. Manufacturers and service providers still lack standard interfaces that all third party assistive technology developers can use to connect their products to the ACS device. In the absence of such standard interfaces, a handful ACS manufacturers and assistive technology manufacturers have been working to develop such an interoperability specification informally; however, legislation as powerful as the CVAA only comes around rarely, and should guarantee such interoperability for the future, rather than relying on proprietary and transitory specifications. Requiring adherence to an open accessibility interface ensures that all ACS manufacturers, not just the highest-minded, adhere to such a standard, thereby both levelling the playing field and assuring the widest accessibility.

Industry Flexibility

77. Sections 716(a)(2) and (b)(2) of the Act provide manufacturers and service providers, respectively, flexibility on how to ensure compliance with the accessibility requirements of the

CVAA. Specifically, a manufacturer or service provider may comply with these requirements either by building accessibility features into the equipment or service or “by relying on third party applications, peripheral devices, software, hardware, or [CPE] that is available to consumers at nominal cost and that can be accessed by people with disabilities.” While the Senate Report did not discuss these provisions, the House Report makes clear that the choice between these two options “rests solely with the provider or manufacturer.” We believe that the statutory language and legislative history preclude us from preferring built-in accessibility over third party accessibility solutions, as some consumer commenters urge us to do. We acknowledge the integral role that universal design has played in ensuring that mainstream products and services are accessible to people with disabilities, and we believe that universal design will continue to play an important role in providing accessibility to people with disabilities. We believe, however, that the industry flexibility provisions of the CVAA reflect the fact that there are new ways to meet the needs of people with disabilities that were not envisioned when Congress passed Section 255, which relied primarily on universal design principles. With new and innovative technologies, in some cases personalized services and products may now be able to more efficiently and effectively meet individual needs than products built to perform in the same way for every person. Sometimes called “auto-personalization,” where available, this allows devices to adapt to individual needs based on the user’s preferences, according to the device’s capabilities. In a growing and increasingly mobile computing environment, for example, consumers may be able to set their preferences so that the interfaces on a device or the content produced by that device automatically become accessible for that individual’s disability needs.

78. We do, however, seek comment on what actions we should take to ensure that third party accessibility solutions meet the needs of consumers in a manner comparable to solutions that are built into the equipment. First, we seek comment on the meaning of the requirement that the third party accessibility solutions “must be available to the consumer at nominal cost.” Some commenters assert that “nominal cost” cannot be a static definition or constitute a set amount or percentage of total cost, but rather should be determined on a case-by-case basis. In contrast, the RERC-IT, noting that people with disabilities are “poor at alarming rates,” urges the Commission to limit “nominal cost” to one percent (1%) of the total cost of the device or service, or the total cost of the device plus service, as applicable. AFB notes further that ongoing costs to keep third party software and hardware up to date and in good working order should be included, such that the total cost to the consumer cannot be more than nominal. While Congress did not prescribe a percentage or amount, it did intend that any fee for third-party software or hardware accessibility solutions be “small enough so as to generally not be a factor in the consumer’s decision to acquire a product or service that the consumer otherwise desires.” We propose to adopt this definition of “nominal cost” and seek comment on this proposed definition. We are concerned, however, that this definition, by itself, might not ensure that the cost of accessibility for the consumer is truly nominal, and we seek comment on whether we need to provide further guidance on the issue.

79. We believe that manufacturers and service providers can rely on a range of third party solutions, subject to the requirements that we discuss further below, including the use of third party applications, peripheral devices, software, hardware, and CPE. We propose to adopt the following definitions of these potential third party accessibility solutions:

- (a) “applications” means “computer software designed to perform or to help the user perform a specific task or specific tasks, such as communicating by voice, electronic text messaging, or video conferencing”;**
- (b) “peripheral devices” means “devices employed in connection with equipment covered by this**

[proceeding] to translate, enhance, or otherwise transfer advanced communications services into a form accessible to individuals with disabilities”;

(c) “software” means “computer programs, procedures, rules, and related data and documentation that direct the use and operation of a computer or a related device and instruct it to perform a given task or function”;

(d) “hardware” means “a tangible communications device, equipment, or physical component of communications technology, including peripheral devices, such as a smart phone, a laptop computer, a desktop computer, a screen, a keyboard, a speaker, or an amplifier”; and

(e) “customer premises equipment” means “equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications.”

We seek comment on these definitions and whether they are sufficiently inclusive of third party solutions available to manufacturers and service providers.

80. Second, we seek comment on the requirement that individuals with disabilities must be able to “access” the third-party solutions. Specifically, we seek comment on ACB’s assertions that the third party solutions (i) “cannot be an after-market sale for which the user must perform additional steps to obtain;” (ii) “must be fully operable by a person with a disability without having to turn to people without disabilities in order to perform setup or maintenance;” and (iii) “must be fully documented and supported.” We believe that for covered entities to meet the “access” requirement of this provision, they must ensure that the third party solution not be more burdensome to a consumer than a built-in solution. In that vein, should a service provider or manufacturer relying on third party solutions be responsible for finding and installing the solution, and supporting the solution over the life of the product? We seek comment on this analysis, on what a company must do to achieve such parity with built-in solutions, and on whether it is necessary to require that covered entities bundle the third party solutions with its products in order to meet the requirements of the statute.

As assistive technology manufacturers and developers, we would like to point out that third party solutions can almost never be developed and deployed without the cooperation of manufacturers and service providers. Standards for hardware, software and user interface elements are needed to support third party hardware and software add-ons for accessibility. We feel that standards have been and still are lacking, and this is one of the fundamental challenges to the assistive technology industry responding to the need to create more accessibility solutions.

For example, one significant point of cooperation that assistive technology developers need is established software entry points into the operating systems of the ACS devices. These entry points allow assistive technology developers to write programs that receive commands and audio from the disabled user in specialized ways, and then forward those commands and audio to the ACS device through these entry points. These entry points must be maintained as the operating system is upgraded, so that the third party software continues to function as the manufacturer upgrades the operating system. And these entry points must be consistent across devices that share the operating system, so that an economy of scale is achieved in order to make third party development economically viable. This is exactly how SDK’s (software development kits) and API’s (application programming interfaces) provided by most ACS and personal computer manufacturers work to foster third party software development—only they often leave out many of the features needed for accessibility development.

While we understand that the FCC does not have a mandate to impose a specific standard, it can mandate that the manufacturers and service providers work together with the disability community and the assistive technology to create standards, as evidenced by the HAC (Hearing Aid Compatibility)

process, and it can impose timelines for the creation of those standards to ensure that those standards get created in a timely manner. In regards to the consumers that we serve, people with moderate to severe mobility impairments and people with speech impairments, assistive technology developers have found the lack of standards challenging as solutions are often obsolete by the time they are ready to go to market due to the rapid pace at which new end user products are developed and deployed. The implementation of standards would ensure consistent access from one generation of device to the next and protect the investment made by the user in their third party assistive technology. We encourage the FCC to get involved in promoting the creation of standards to meet the needs of all disability communities.

We agree with the definition of the class of potential third party accessibility solutions outlined in paragraph 79. We acknowledge that the definitions are broad enough to encompass current and future third party solutions.

In regard to paragraph 80 and ACB's recommendations. We believe that these objectives are not achievable unless there is a requirement that covered entities bundle the third party solutions with its products in order to meet the requirements of the statute. This may very well be practical for the populations that ACB and others work with. We consider that for the consumers we work with, though, the third party add-ons are too specialized for ACS's representatives to be properly trained explain, demonstrate, to match to a customer's needs or set up for the user.

Even within this regard, in some case and more specifically for the consumers that we work with, it is not achievable for the consumer to set up the hardware element of the solution "without having to turn to people without disabilities in order to perform setup or maintenance" principally because these specific consumer may have no use of their hands and the end user products and the hardware elements of the third party assistive technology solution might have to be mounted to their wheelchair or desk, depending on how they use the device.

In regards to Paragraph 78 and the "requirement that the third party accessibility solutions "must be available to the consumer at nominal cost". This may be possible for certain disabled populations, particularly large populations who can be served adequately by purely software solutions. However, as assistive technology manufacturers we do not believe that it is achievable for the populations we serve as the economy of scale will not allow this. In the case of third party software accessibility solutions, it may be possible if the solution is adopted and deployed with every device, and the cost of the development and maintenance of the software solution is borne by every consumer that buys the device regardless of whether he or she has a disability.

In regards to access solutions requiring hardware, we do not believe it is possible as achieve this goal. Even though economies of scale would drive down the price of the hardware if it was shipped with every device, we do not believe that consumers in general will accept the increased cost. In calculating nominal cost, consumers often have a false sense of the cost of a product. The \$100 phone that the consumer receives may cost \$500 to manufacture, with the service provider subsidizing the initial cost of the product and recovering the cost through a fixed term subscription that recovers the subsidy over a period of time. Perceived nominal cost is therefore not a good indicator for determining nominal cost.

Hardware solutions for our clients with moderate to severe motor and speech impairments are simply too specialized to the needs of the individual client to justify including in every package. Most hardware solutions are also much too expensive (due to low volume, extreme ruggedness, etc.) to fit within 1% (or in many cases even 100%) of the total cost of the unaided system or service. Moreover,

we expect that Medicare, Medicaid and others will eventually defray all or part of the cost of third party add-ons for accessibility. This is all in sharp contrast to the software entry points we are asking for within the operating systems of the devices, which should be relatively inexpensive to develop and free to distribute, and make third party add-ons possible.

Accessible to and Usable by

81. Under Sections 716(a) and (b) of the Act, covered service providers and equipment manufacturers must make their products “accessible to and usable by” people with disabilities, unless it is not achievable. In this section, we seek comment on the extent to which we should continue to define “accessible to and usable by” as we have for our implementation of Section 255, which requires telecommunications service providers and equipment manufacturers to make their products “accessible to and usable by” people with disabilities, if readily achievable.

82. In the *Section 255 Report and Order*, the Commission adopted a definition of “accessible” in section 6.3(a) of the Commission's rules which incorporated the functional definition of this term from the Access Board guidelines and includes various input, control, and mechanical functions, output, display, and control functions. The *Section 255 Report and Order* also adopted a definition of “usable” in section 6.3 that incorporated the Access Board’s definition of this term. Specifically, section 6.3(l) provides that “usable” “mean[s] that individuals with disabilities have access to the full functionality and documentation for the product, including instructions, product information (including accessible feature information), documentation, and technical support functionally equivalent to that provided to individuals without disabilities.”

83. We seek comment on whether we should adopt these definitions for purposes of Section 716 or whether we should take this opportunity to make changes to these definitions that would apply to both our Section 255 rules and our Section 716 rules based on the Access Board Draft Guidelines that were released for public comment in March 2010. While we note that there is a great deal of overlap between Section 255’s definition of “accessible” and the Access Board’s proposed updated functional criteria for ICT, there are some differences. To the extent that there are differences between these definitions and criteria, should we work to reconcile those differences? For example, the Section 255 rules address cognitive disabilities whereas the draft ICT guidelines do not, and the draft ICT guidelines address photosensitive seizures, whereas the Section 255 rules do not. In addition, we note that the Access Board Draft Guidelines on “usability” are broader and more detailed than the Section 255 rules. The Access Board Draft Guidelines, for example, cover training and alternate methods of communication.

We support the definition of “usable”, “to mean that individuals with disabilities have access to the full functionality and documentation for the product, including instructions, product information (including accessible feature information), documentation, and technical support functionally equivalent to that provided to individuals without disabilities.”

We also support the FCC's proposal that the CVAA process should take this opportunity to make changes to the definitions that would apply to both the Section 255 rules and our Section 716 rules. We also strong support the proposal put forward by the FCC to identify and address differences between the definitions and criteria. As pointed out in the above paragraphs there are omissions in the Access Board ICT guidelines and this leaves some disability groups disadvantaged as manufacturers do not have explicit guidance on how to address their needs. Words+ and Compusult would like to participate in that process.

Compatibility

85. Under Section 716(c) of the Act, whenever accessibility is not achievable either by building in access features or using third party accessibility solutions as set forth in Sections 716(a) and (b), a manufacturer or service provider must “ensure that its equipment or service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access,” unless that is not achievable. Section 255 contains a similar compatibility requirement for telecommunications service providers and manufacturers if it is readily achievable to do so, in cases where built-in accessibility is not readily achievable.

86. Our Section 255 rules define peripheral devices to mean “devices employed in connection with equipment covered by this part to translate, enhance or otherwise transform telecommunications into a form accessible to individuals with disabilities.” We stated in the *Section 255 Report and Order* that these might include “audio amplifiers, ring signal lights, some TTYs, refreshable Braille translators, [and] text-to-speech synthesizers.” Our Section 255 rules define specialized CPE as customer premises equipment that is commonly used by individuals with disabilities to achieve access.

87. For purposes of Section 716, we propose to define peripheral devices to mean “devices employed in connection with equipment, including software, covered under this part to translate, enhance, or otherwise transform advanced communications services into a form accessible to individuals with disabilities.” This definition is based on our Section 255 definition, with some refinements to reflect the statutory language in Section 716. We also propose to define specialized CPE, as we do in our Section 255 rules, as “customer premises equipment which is commonly used by individuals with disabilities to achieve access.” We agree with the vast majority of commenters that peripheral devices can include mainstream devices and software, as long as they can be used to “translate, enhance, or otherwise transform advanced communications services into a form accessible to individuals with disabilities” and the devices and software are “commonly used by individuals with disabilities to achieve access.” As we found in the *Section 255 Report and Order*, we do not believe that it would be feasible for the Commission to maintain a list of peripheral devices and specialized CPE commonly used by individuals with disabilities, given how quickly technology is evolving. For the same reason, we also believe that covered entities do not have a duty to maintain a list of all peripheral devices and specialized CPE used by people with disabilities. We do believe, however, that covered entities have an ongoing duty to consider how to make their products compatible with the software and hardware components and devices that people with disabilities use to achieve access and to include this information in their records required under Section 717(a)(5). We seek comment on these proposed definitions.

As we have pointed out previously in this submission, there are currently no standards adopted by individual manufacturers or industry wide standards adopted by industry associations that allow assistive technologies to interface to ACS. While standards for interfacing CPE exist for interfacing to devices like personal computers, the ACS manufacturing industry has not generally recognized the necessity for such standards. As AT developers and manufacturers, this is a significant impediment to migrating our products which function on PCs to ACS devices. While we would welcome and support the adoption of the standards adopted informally for PCs, we recognize the unique requirements that ACS devices have. We strongly encourage the FCC to mandate the development of standards by the manufacturers and service providers in consultation with the disability community and assistive

technology developers and manufacturers. We understand that the FCC has decided not to mandate specific standards in order to provide the most flexibility to manufacturers and service providers, but we also recognize the need for standards for the AT industry to put forward solutions to consumers with disabilities, especially the individuals that we serve.

88. We also seek additional comment on what should be required to ensure compatibility in the context of advanced communications services. Under our Section 255 rules, we use four criteria for determining compatibility: (i) external access to all information and control mechanisms; (ii) existence of a connection point for external audio processing devices; (iii) TTY connectability; and (iv) TTY signal compatibility. We seek comment on whether the four criteria listed above remain relevant in the context of advanced communications services. For example, we understand that a sizeable majority of consumers who previously relied on TTYs for communication are transitioning to more mainstream forms of text and video communications. If we want to encourage an efficient transition, should we phase out the third and fourth criteria as compatibility components in our Section 716 rules? Should we phase out the criteria from our Section 255 rules as well? If so, should we ensure that these requirements are phased out only after alternative forms of communication, such as real-time text, are in place?

89. While the Access Board Draft Guidelines address compatibility primarily with content providers in mind, they may still be helpful in defining what “compatible” should mean as we update our accessibility rules. The Access Board Draft Guidelines define compatibility to be the “interaction between assistive technology, other applications, content, and the platform,” as well as the preservation of accessibility in alternate formats. We seek further comment on whether and how we should use the Access Board Draft Guidelines to help us define compatibility for purposes of Section 716.

We agree with the broad definition of compatibility put forward by the Access Board guidelines, but we would also like to point out the Access Board Guidelines are quite broad and leave too much interpretation in the hands of manufacturers that often have very little grounding in disability issues. In the past this has led to manufacturers implementing incomplete accessibility solutions in regards to the intent of the CVAA as specified in paragraph 80.

90. We also seek comment on whether we should adopt additional criteria for determining compatibility under Section 716 and Section 255. The Access Board Draft Guidelines note that accessibility programming interfaces (“APIs”) enable interoperability with assistive technology. Code Factory explains, for example, that it is better able to develop a screen reader application if “manufacturers and operating system developers develop an Accessibility API, which is essentially a layer between the device user interface and the screen reader that can be used to pull information that must be spoken to the user.” The Access Board Draft Guidelines direct platforms, applications, and interactive content to comply with World Wide Web Consortium’s Web Content Accessibility Guidelines (WCAG) 2.0 Level AA Success Criteria and Conformance Requirements or to comply with specific accessibility criteria in Chapter 4 of the Access Board Draft Guidelines. Are there aspects of the WCAG guidelines or Access Board criteria that we should incorporate into our definition of compatibility? We also seek comment on the status of industry development of APIs and whether incorporating criteria related to APIs into our definition of compatibility could promote the development of APIs.

We strongly support the development of APIs in order to facilitate the interfacing of AT to ACS devices. More specifically, we recognize the lack of APIs that allow AT devices commonly used with people who have moderate to severe mobility impairment and individuals that have speech impairments to use ACS devices.

Some AT manufacturers and ACS manufacturers are working towards developing interface specifications around AT devices for people with mobility impairment and individual that have speech impairments. A mandate from the FCC to complete those standards within a specified period of time and have those standards subsequently adopted by the ACS manufacturers would encourage more ACS device manufacturers and AT manufacturers to join the process. It would also allow the departments within those manufacturers with domain responsibility to ask for the appropriate resources to implement those standards in a timely manner.

Safe Harbors

112. Section 716(e)(1)(D) of the Act provides that the Commission “shall . . . not mandate technical standards, except that the Commission may adopt technical standards as a safe harbor for such compliance if necessary to facilitate the manufacturers’ and service providers’ compliance” with the accessibility and compatibility requirements in Section 716. In the *October Public Notice*, we sought comment on whether we should adopt safe harbor technical standards.

113. The vast majority of commenters oppose establishing technical standards as safe harbors. CTIA and AT&T assert that safe harbors will result in *de facto* standards being imposed that will limit the flexibility of covered entities seeking to provide accessibility. The IT and Telecom RERCs state that the Commission’s rules should not include safe harbors because “technology, including accessibility technology, will develop faster than law can keep up.” AFB asserts that it is too early in the CVAA’s implementation “to make informed judgments . . . about whether and which safe harbors should be available.” While ITI supports safe harbors, noting they provide clarity and predictability, it warns against using safe harbors “to establish implicit mandates [that] . . . lock in particular solutions.” In light of the concerns raised in the record, we agree with AFB that it is too early in the implementation of the CVAA to make informed judgments about whether safe harbor technical standards should be established. Therefore, we propose not to adopt any technical standards as safe harbors at this time. We seek comment on this proposal.

We support the position that has been put forward by the AFB that it is too early to adopt technical standards as safe harbors at this time. We also recognize the need for the FCC to reserve the right to impose technical standards as safe harbors if the manufacturers and service providers are unwilling or unable to develop standards on their own in collaboration with the disability community and AT developers and manufacturers in a timely manner.

We also note that AT developers and manufacturers have seen a reluctance on the part of manufacturers and service providers to move toward standards that would allow AT devices to interface to communication devices under the old Section 255 rules, and that FCC has a critical role to play in light of the standard set under “if achievable” wording of the current legislation, if standards are to be

developed by industry and the disability community in a timely manner.

115. We agree with CTIA that the prospective guidelines that we adopt must be clear and understandable and provide service providers and manufacturers as much flexibility as possible, so long as achievable accessibility requirements are satisfied. We seek comment on a proposal by the RERC-IT, endorsed by ACB, that we use “an approach to the guidelines similar to that used by the World Wide Web Consortium’s Web Content Accessibility Guidelines (WCAG), which provide mandatory performance-based standards and non-mandatory technology-specific techniques for meeting them.” We also seek comment on whether any parts of the Access Board’s Draft Guidelines on Section 508 should be adopted as prospective guidelines. In addition, we seek comment on the process that should be used to develop prospective guidelines and to ensure that a diverse and broadly-based group of stakeholders participate in such an effort. Should the Commission, for example, establish a consumer-industry advisory group to prepare these?

We support the establishment of a consumer-industry advisory group to prepare these guidelines and are willing to participate actively with this advisory group.

We have found that previous consultation processes were not broad enough and that the needs of specific disability groups, such as those with moderate to severe mobility and speech disorders, have been overlooked. We strongly suggest that the makeup of this new advisory group be more representative.

128. *Pre-Filing Notice.* We seek comment on whether the Commission should require potential complainants to first notify the defendant manufacturer or provider that it intends to file a complaint based on an alleged violation of one or more provisions of Section 255, 716, or 718. We note that some parties have suggested that such a pre-filing notice can potentially foster greater communication among parties. While we agree that such a requirement could lead to a more efficient resolution in advance of a complaint in some instances, we are also concerned that in other cases, such a requirement could prove burdensome to consumers and delay resolution of complaints. In the *Section 255 Report and Order*, consistent with an Access Board recommendation, we encouraged consumers to express their concerns informally to the manufacturer or service provider before filing a complaint with the Commission. We declined, however, to adopt a rule requiring consumers to contact manufacturers and service providers before they could file a complaint with the Commission, finding that our informal complaint process is “geared toward cooperative efforts.” We seek comment on whether such an approach is sufficient or whether a specific requirement is necessary. To the extent that commenters advocate that we require that consumers notify manufacturers or providers before they file a complaint, we seek comment on specific safeguards that we should adopt to ensure that this requirement does not prove onerous to the consumers.

We believe only a small portion of consumers realize that they can complain to the FCC in order to resolve their issue and a smaller number still that will follow through with an informal or formal complaint. We believe this will be even more true for disabled users and their caregivers than for the typical consumer. We strongly urge the FCC not to require that potential complainants be required to pre-filing a notice of an intention to complain with manufacturer or service providers. We agree that it

is an undue burden on consumers. In many cases, the consumer is not knowledgeable enough to identify which party is responsible for the inaccessibility of the service or the device. Correspondingly, the informal and formal complaint process provide a structure to resolving the complaint that may be lacking or inconsistent if the consumer were to have to solely rely on the manufacturer or service provider to resolve.

129. *Receipt and Filing of Complaints.* We seek comment on how the Commission should establish separate and identifiable electronic, telephonic, and physical receptacles for the receipt of complaints, both formal and informal. We note that the Commission's Disability Rights Office has already established a new phone number [202-418-2517(V) / 202-418-2922 (TTY)] and email address (dro@fcc.gov) for this purpose. We also note that currently, informal complaints alleging a violation of Section 255 may be transmitted to the Commission via any reasonable means, e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, audio-cassette recording, and Braille. We propose to retain these vehicles as means for transmission and receipt of informal complaints by the Commission under Sections 255, 716, and 718 and ask commenters to consider whether additional methods are necessary to meet this statutory requirement. Similarly, as discussed more fully below, we seek comment on the extent to which we should retain or revise our current requirements under Section 255 governing formal complaints that are filed for alleged violations by manufacturers and providers under Sections 255, as well as Sections 716 and 718, in the future. At present, these procedures are consistent with sections 1.720–1.736 of the Commission's rules. If we make changes to facilitate the filing of informal complaints, but continue to apply our procedures for formal complaints largely in their current form to the new ACS sections (as well as maintain these procedures for Section 255), will this be enough to fulfill Congress's intent to facilitate the filing of complaints under these sections? We note that since our Section 255 rules went into effect in 1999, the Commission has received only three formal complaints alleging violations of that Section.

We acknowledge that the FCC provides a range of method in which to file complains, but getting information on how to file an actual complaint is not readily available to all consumers. The FCC website for example is very complex website and large sections of it are not written in "plain" language. A quick visual search of the FCC website home page does not reveal a quick way to find out how to complain and how to file a complaint through the FCC website. We understand that the FCC is a large organization that it covers a large range of issues and faces a challenge in trying to provide a range of services and information to a diverse audience.

While we acknowledge that there have only been three formal complaints since the rules took effect in 1999, we would also like to point out that cost of filing a formal complaint is a deterrent to filing a formal complaint. The discovery process in of itself would be cost prohibitive for most individuals as it requires the services of attorneys. Only the most well financed individuals or organizations can undertake the formal complaint process.

There is value for our populations in the informal complaint process, but it should be made clearer to users how to access it. We do not expect the formal process to be of use to our populations due to the cost and effort required.

130. *Standing to File.* We received comments requesting that the Commission establish "reasonable" standing requirements. We note that the CVAA allows "any person alleging a

violation” of the CVAA or the implementing rules to file a formal or informal complaint under Section 255, 716, or 718. Given that there is no standing requirement under these Sections, and there is no standing requirement under either Section 208 of the Act and our existing complaint rules, we decline to propose a standing requirement and believe the minimum content requirements we propose *infra* in Sections VI.C.3 and VI.C.4 will effectively deter frivolous complaint filings.

We do not believe the consumers we are advocating for would be well served by the establishment of a “reasonable” standing requirement. Our own experience with the consumers that we have interaction with is that they are loath to raise an issue unless it is an extremely serious manner. We do not know the volume of complaints filed each year in regards to accessibility issues, but suspect the absolute volumes are relative low in comparison with other complaints received by the FCC.

131. *Sua sponte* actions by the Commission. As noted above, the Commission’s implementing rules for Section 255 explicitly state that the agency may, on its own motion, conduct enquiries and proceedings as necessary to enforce the requirements of its implementing rules and that Section of the Act. We intend for the Commission and its staff to continue to investigate and take action on our own motion when compliance issues or problems involving Sections 255, 716, and 718 come to our attention through an accessibility-related complaint or otherwise. Rather than establishing specific guidelines for initiating investigations and other enforcement actions on the Commission’s own motion, we propose to continue to follow existing protocols, and use procedures that in the opinion of the Commission best serve the purposes of Commission- and staff-initiated enquiries and proceedings. We seek comment on this approach.

We support the ability and right of the FCC to investigate and take action on its own motion when compliance issues or problems arise involving section 255, 716 and 718 issues. We support a proactive approach as a way to address issues early on before they reach the informal or formal complaint process.

132. Remedies and Sanctions. We seek comment on what remedies and other sanctions the Commission should consider for violations found to have occurred under Section 255, 716, or 718. As a preliminary matter, as noted above, we observe that Section 717(a)(3)(B) specifically authorizes the Commission to impose as a remedy for any violation an order directing a manufacturer to bring the next generation of its equipment or device, and a service provider to bring its service, into compliance within a reasonable period of time. We also observe that Section 718(c) envisions that we will continue to use our existing enforcement authority under Section 503 of the Act, but specifically adds that (subject to Section 503(b)(5)) manufacturers and service providers subject to the requirements of Sections 255, 716, and 718 are liable for forfeitures of up to \$100,000 per violation or each day of a continuing violation, with the maximum amount for a continuing violation set at \$1 million. We intend to use these statutorily directed remedies and sanctions as well as other remedies and sanctions authorized in the Act. We propose a change to section 80 of the Commission’s rules in Appendix B *infra* to reflect the modifications of section 718(c) to the Act.

We believe the enforcement process to be adequate, but that given the annual revenues of some of the manufacturers and service providers the maximum amount of the fine per violation should not be capped at \$1 million. Fines are the FCC’s most compelling enforcement instrument, and we are

concerned that organizations can accept such a fine as a cost of doing business and not address the CVAA.

Informal Complaints

135. We note that commenters suggest that any enforcement procedures should provide clarity regarding culpability, given that a product or service may potentially involve several different entities such as a device manufacturer, a broadband provider, or an application developer. We acknowledge that it may be difficult for a consumer to determine where the responsibility of one covered entity ends and another begins. We seek comment on what additional procedures the Commission might adopt to clarify which entity is “culpable” for noncompliance and further ask to what extent the Commission should be available to assist consumers in determining which entities are appropriately targeted by specific complaints? We also seek comment on what additional elements should be included in complaints that are filed under these sections, beyond what is proposed below.

We believe it is unreasonable to expect the consumer to determine what is the root cause of their inability to access a specific product or service. Often the consumer does not make the distinct between the specific phone and the service provided by the service provider. In fact, many phones are branded by the service provider such that only the most knowledgeable consumer would know who the manufacturer of their device is.

136. We propose the following minimum requirements that complainants should include in their informal complaints, which are consistent with Section 255 requirements as well as existing enforcement rules that have been adopted in other contexts.¹ Specifically, we propose to include the following in any informal complaint: (1) the name, address, email address and telephone number of the complainant, and the manufacturer or service provider defendant against whom the complaint is made; (2) a complete statement of facts explaining why the complainant contends that the defendant manufacturer or provider is in violation of Section 255, 716, or 718, including details regarding the service or equipment and the relief requested, and all documentation that supports the complainant’s contention; (3) the date or dates on which the complainant or person on whose behalf the complaint is being filed either purchased, acquired, or used (or attempted to purchase, acquire, or use) the equipment or service about which the complaint is being made; (4) the complainant’s preferred format or method of response to the complaint by the Commission and defendant (e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet email, audio-cassette recording, Braille; or some other method that will best accommodate the complainant’s disability); and (5) any other information that is required by the Commission’s accessibility complaint form. We seek comment on this proposal and request parties to consider what additional or modified requirements are necessary. Complaints that do not satisfy the pleading requirements will be dismissed without prejudice to refile.

The FCC may also want to ask the complainant to identify the nature of his or her disability. This should be optional. It can be an important piece of information to helping the Commission understand the details and significance of the complaint, allow the FCC to collect valuable statistics, and have other benefits.

137. 1. We also recognize that the CVAA's recordkeeping requirements will allow the Commission to obtain records of the efforts taken by manufacturers or providers to implement Sections 255, 716, and 718 and the Commission may use these records as necessary to determine whether a covered entity has complied with its legal obligations. Additionally, consistent with our Section 255 rules, we propose to maintain our current rule that the Commission will promptly forward any informal complaint meeting the appropriate filing requirements to each defendant named or determined to be implicated by the complaint. Also consistent with our approach taken in our Section 255 rules, we propose to require manufacturers and service providers to establish points of contact for complaints and enquiries under Section 255, 716, or 718. We continue to believe that this requirement will facilitate the ability of consumers to contact manufacturers and service providers directly about accessibility issues or concerns and ensure prompt and effective service of complaints on defendant manufacturers and service providers by Commission staff. We seek comment on this proposal.

We support the requirement to have a single point of contact in regards to complaints and inquirers under Section 244, 716 or 718.2 for each manufacturer or service provider. In some cases, we recognize that a single point of contact already exists within some of the manufacturers and service providers, so this should not be an undue burden to these organizations. This single point of contact should be clearly communicated to consumers to facilitate the process.

138. As discussed above, the CVAA provides a party that is the subject of a complaint a reasonable opportunity to respond to such a complaint. Consistent with this requirement, we propose that answers to informal complaints must: (1) be filed with the Commission and served on the complainant within twenty days of service of the complaint, unless the Commission or its staff specifies another time period; (2) respond specifically to each material allegation in the complaint; (3) set forth the steps taken by the manufacturer or service provider to make the product or service accessible and usable; (4) set forth the procedures and processes used by the manufacturer or service provider to evaluate whether it was achievable to make the product or service accessible and usable; (5) set forth the names, titles, and responsibilities of each decisionmaker in the evaluation process; (6) set forth the manufacturer's basis for determining that it was not achievable to make the product or service accessible and usable; (7) provide all documents supporting the manufacturer's or service provider's conclusion that it was not achievable to make the product or service accessible and usable; (8) include a certification by an officer of the manufacturer or service provider that it was not achievable to make the product or service accessible and usable; (9) set forth any claimed defenses; (10) set forth any remedial actions already taken or proposed alternative relief without any prejudice to any denials or defenses raised; (11) provide any other information or materials specified by the Commission as relevant to its consideration of the complaint; and (12) be prepared or formatted in the manner requested by the Commission and the complainant, unless otherwise permitted by the Commission for good cause shown. We seek comment on this proposal. We further propose that within ten (10) days after service of an answer, unless otherwise directed by the Commission, the complainant may file and serve a reply, which shall be responsive to matters contained in the answer and shall not contain new matters. We seek comment on this proposal as well. Given the statutory requirement for the Commission to issue an order concluding an investigation of an informal complaint within 180 days of the filing of the complaint, are there other pleading requirements we should impose, and, if so, what should these be?

We support this process. We think it provides a reasonable amount of detail to the complainant and the

FCC as to the efforts made to resolve the complaint by the manufacturer and service provider. We also think the timeframes are reasonable. We suggest that a complainant be allowed to ask for an extension in the case where they are not able to respond with the allotted period, provided it does not unduly extend the 180 day timeline for a resolution of a complaint.

139. As noted above, the CVAA requires the Commission to issue an order that finds whether a violation has occurred within the time limits required by the Act, and to provide an explanation for its conclusion. Also, as we have noted, the statute provides that if the Commission determines that a violation has occurred, the Commission may direct the manufacturer or service provider to bring the service, or in the case of a manufacturer, the next generation of the equipment or device, into compliance with requirements of those Sections within a reasonable time established by the Commission in its order. In addition, as also previously mentioned, before issuing a final order, the Commission is required to provide the responding party a reasonable opportunity to comment on any proposed remedial action. We would further note that the CVAA authorizes the Commission to direct manufacturers and service providers of ACS to bring their equipment and services into compliance either in the order concluding an investigation based on an informal complaint or “in a subsequent order.” Recognizing the importance of the rapid implementation of remedies to achieving the CVAA’s broader goals, however, we will endeavour to issue a determination regarding remedies within 180 days after an informal complaint is filed, or shortly thereafter in a subsequent order, whenever feasible. We seek comment on this approach.

We believe the time frame for a determination of a violation is reasonable and gives all parties time to comment on the complaint and that the process is clear and transparent with a well defined procedure for an outcome that should benefit the consumer.

140. We recognize that the Commission must exercise any remedial authority selectively and carefully, based on legislative history, particularly for consumer and wireless devices, clarifying that “the Commission shall provide [service providers and manufacturers] a reasonable time to bring the service or equipment at issue into compliance . . . [and should not] require retrofitting of such equipment that is already in the market.” We seek comment on what we should consider a reasonable time in which to bring inaccessible devices or services into compliance and how best to impose compliance in this context consistent with our proposals for remedies and sanctions discussed above. We also seek input on what constitutes “reasonable opportunity” to comment on any proposed remedial action.

We recognize that some accessibility solutions may have to wait for the next product revision cycle or major revision of the product to implement the solution. We also recognize that product cycles have been contracted within the consumer product space to less than 18 months from product conception to release. We propose that the reasonable time in which to bring inaccessible devices or services into compliance would be a period no more than 18 months. We feel that 90 days should be sufficient time to evaluate the feasibility of implementing a solution and allow a reasonable opportunity to comment.

143. We seek further comment on the upcoming obligations imposed by Section 718, which generally provides that “[i]f a manufacturer of a telephone used with public mobile services . . . includes an Internet browser in such telephone, or if a provider of mobile service arranges for the

inclusion of a browser in telephones to sell to customers, the manufacturer or provider shall ensure that the functions of the included browser (including the ability to launch the browser) are accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable.

We recognize the importance of this particular regulation for individuals who are blind and would suggest that this requirement also extend to individual who have mobility impairments and who do not have the ability to speak. These individuals also face challenges that have currently not been addressed and should be addressed.

Conclusion

We leave you with a summary of our three most important points.

1. The CVAA should be applied to the largest number of devices and services possible and practical, including multiple function devices that include ACS features. Section 255 was not strong enough to serve the needs of people with disabilities to the present, let alone into the future, and should be superseded by the CVAA for virtually all new and updated ACS devices.
2. Third party solutions should be enabled by ACS manufacturers providers through their API's, and may be bundled in ACS at nominal cost when practical. However, in the case of people with moderate to severe mobility and speech disabilities, the add-on software and hardware needed is generally too specialized, complex, and expensive for the ACS provider to develop or support directly, or to fit into a typical cell phone pricing model.
3. A standard API should be adopted and implemented as a result of the CVAA in order to widen the economies of scale that make disability solutions productive, and to offer people with disabilities a complete set or substantial subset of the communication choices offered to able-bodied people. While the FCC does not intend to mandate a standard, the FCC has set a precedent in HAC for mandating that ACS providers and AT providers co-develop and adopt a standard in a timely manner.

Respectfully submitted,

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